UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,724	03/19/2004	Jerry Rolia	200300271-1	8258

22879   7590   04/16/2009
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EXAMINER
WILLIAMS, CLAYTON R

ART UNIT	PAPER NUMBER
2457	

NOTIFICATION DATE	DELIVERY MODE
04/16/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2009*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-27,29 and 30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12, 14-27, 29 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12, 14-27, 29 and 30 are pending in this application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1-12, 14-27, 29 and 30 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The methods described are broad enough that the claims could be completely performed mentally, verbally or without a machine nor is any transformation apparent.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 15, 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated

by Brelin (6647448: hereinafter Brelin).

For claims 1, 2, 15, 16, 29 and 30, Brelin discloses:

A method of policing resources in a computing utility facility, comprising:

intercepting an advanced request for resources from an application admitted to

access a pool of resources associated with the computing utility facility and prior to

utilization of the pool of resources to execute the application (col. 6, lines 20-25)

acquiring an entitlement profile associated with the application to determine if

application is entitled to requested resources over a time period (col. 6, lines 20-25);

identifying an entitlement value and corresponding sliding window of the time

period from the entitlement profile (Fig. 9, unit 90);

determining if the request for resources exceeds the entitlement value associated

with the sliding window (col. 10, lines 5-10 and 36-50); and

indicating application entitlement to the request for resources in response to the

determining and if the request is excessive including throttling of the requested

resources when the application is not entitled to the additional resources in accordance

with the entitlement profile (col. 10, lines 5-10 and 36-50).

For claims 2 and 16, Brelin discloses:

The method of claim 1 further comprising:

acquiring additional sliding windows and corresponding additional entitlement

values to determine if the request for resources exceeds at least one entitlement value

and sliding window combination (col. 6, lines 20-25); and

indicating that the application is not entitled to the requested resources when the

request exceeds the entitlement value in at least one entitlement value and sliding

window combination (col. 10, lines 5-10 and 36-50).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 3-12 and 14, 17-26 and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Brelin, in view of Shabauddin (6877035: hereinafter Shabauddin).

For claims 3 and 17, Brelin fails to explicitly disclose:

The method of claim 1 wherein the entitlement profile associated with the application

describes the burstiness of the application over the time period.

However, Shabauddin discloses a resource sharing system wherein predicted

client behavior is modeled for purposes of forecasting future requirements period

(Shahabuddin, col. 5, lines 31-32, and col. 6, lines 10-15 and 21-24, disclosure of

method of modeling behavior of clients using different time resolutions and observations

of periodic behavior, i.e. burstiness of behavior)

It would have been obvious to one skilled in the art at the time of the invention to

modify the teachings of Brelin because Shabauddin would extend the system to include

awareness of future/anticipated needs of a hosted client application, Thereby allowing

for adequate provisioning of server farm resources.

For claims 4 and 18, the combination of Brelin and Shabauddin discloses:

The method of claim 1 wherein a burst loading factor associated with each sliding

window corresponds to the burstiness of the application and identifies a portion of an

aggregate entitlement to the resources available to fulfill the request (Shahabuddin, col.

5, lines 31-32, col. 6, lines 10-15 and col. 6, lines 21-24, disclosure of information

constituting patterns of behavior being incorporated into utilization database of client

behavior).

For claims 5 and 19, the combination of Brelin and Shabauddin discloses::

The method of claim 4 wherein a larger burst loading factor is associated with more

bursty applications that may need resources more rapidly compared with a smaller burst

loading factor is associated with applications that may not need resources as

rapidly(Shahabuddin, col. 5, lines 31-32 and col. 6, lines 10-15 and 21-24).

For claims 6 and 20, the combination of Brelin and Shabauddin discloses::

The method of claim 1 wherein the entitlement value is derived from historical trace

information collected while the application is using resources(Shahabuddin, col. 7, lines

40-44, the monitoring system acquires and constantly updates a profile of client

behavior; Shahabuddin, col. 7, lines 58-63, monitoring system provides information to

decision support system).

For claims 7 and 21, the combination of Brelin and Shabauddin discloses::

The method of claim 1 wherein the burst loading factor is derived from the historical

trace information collected while the application is using resources(Shahabuddin, col. 7,

lines 40-44; col. 7, lines 58-63).

For claims 8 and 22, the combination of Brelin and Shabauddin discloses::

The method of claim 3 wherein the resource usage is determined according to an

estimated probability mass function (Shahabuddin, col. 6, lines 10-16).

For claims 9 and 23, the combination of Brelin and Shabauddin discloses::

The method of claim 4 wherein the estimated probability mass function further includes

a confidence interval corresponding to a sample size used for determining the estimated

probability mass function (Shahabuddin, col. 6, lines 35-49, disclosed probability

equations and alpha-satisfiability measure read on confidence interval).

For claims 10 and 24, the combination of Brelin and Shabauddin discloses::

The method of claim 1 wherein the entitlement value operates as a metric for

determining whether an application is entitled to the requested resources (Shahabuddin,

col. 7, lines 47-49, the decision support system takes input from monitoring system

produced database model and service level agreements to make decisions regarding

allocation of resources).

For claims 11 and 25, the combination of Brelin and Shabauddin discloses::

The method of claim 10 wherein the entitlement value for an application is proportional

to the burstiness of the application in view of resource usage derived from historical

trace data (Shahabuddin, col. 7, lines 40-44; col. 7, lines 58-63).

For claims 12 and 26, the combination of Brelin and Shabauddin discloses::

The method of claim 1 wherein determining if the request for resources exceeds the

entitlement value further depends on a confidence interval associated with the

entitlement value and the number of sample values used to identify the entitlement

value (Shahabuddin, col. 7, lines 40-44 and 58-63, disclosure of system that obtains

utilization patterns and makes recommendations to adjust resources allocated to client;

Shahabuddin, col. 6, lines 10-15 and 35-49, disclosure of utilization patterns having

confidence interval bounds and accuracy based on number of data samples taken to construct model).

For claims 14 and 28, the combination of Brelin and Shabauddin discloses::
The method of claim 1 wherein indicating application entitlement includes clawing back resources already allocated to the application when the application has exceeded a time limit for using the allocated resources (Brelin, col. 10, lines 5-10 and 36-50.

Response to Arguments

Applicant's arguments have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection have been made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clayton R. Williams whose telephone number is 571-270-3801. The examiner can normally be reached on M-F (8 a.m. - 5 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Apr. 10, 2009
CRW

Clayton R. Williams
Patent Examiner
Art Unit 2457

/ARIO ETIENNE/

Supervisory Patent Examiner, Art Unit 2457